App. No. 10/039,307

Attorney Docket No.: P0008969.00

## **Amendments to the Claims:**

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

1.-16. (Canceled)

17. (Currently amended) An apparatus for treating a patient to improve cardiac performance and efficiency of the patient's heart, the apparatus comprising:

means for monitoring one or more physiologic parameters of the patient;

at least one electrode adapted to be located in a region associated with nervous tissue in a patient;

means for automatically applying electrical stimulation via the at least one electrode to improve balance of a neuro-endocrinological system of the patient in response to a the physiologic signal parameters of the patient; and

means for delivering a <u>cardiac resynchronization therapy</u> pacing therapy to the patient's heart; <u>and</u> of a type that improves cardiac output, wherein said pacing therapy consists of a cardiac resynchronization therapy

wherein the means for applying the electrical stimulation includes means for titrating the electrical stimulation based on the physiological parameters in conjunction with the cardiac resynchronization therapy to achieve an optimal pressure-volume relationship of the patient's heart.

- 18. (Previously presented) The apparatus of claim 17, wherein the at least one electrode further comprises at least one implanted electrode adapted to be located adjacent a patient's spine.
- 19. (Previously presented) The apparatus of claim 17, wherein the at least one electrode is adapted to be located external to and in direct contact with a portion of skin of the patient's body so that direct electrical stimulation of the portion of skin occurs when the at least one electrode is energized.

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20. (Previously presented) The apparatus of claim 17, wherein the at least one electrode is adapted to be located in a subcutaneous space of the patient's body.

21. (Currently amended) The apparatus of claim 17, wherein means for applying electrical stimulation further comprises:

means for monitoring one or more predetermined physiologic parameters of the patient; and

means for adjusting the electrical stimulation based on the one or more predetermined physiologic parameters.

- 22. (Currently amended) The apparatus of claim 21, wherein the cardiac resynchronization therapy is a triple chamber cardiac resynchronization therapy; and wherein the means for adjusting the electrical stimulation further comprises means for adjusting the electrical stimulation based on the administered cardiac resynchronization therapy.
- 23. (Previously presented) The apparatus of claim 17, wherein the at least one electrode is adapted to be located in a region containing a nerve associated with a trunk portion of the body of the patient.
- 24. (Previously presented) The apparatus of claim 17, wherein the at least one electrode is adapted to be located in a region containing at least one thoracic vertebrae.
- 25. (Previously presented) The apparatus of claim 17, wherein the at least one electrode is adapted to be located in a region containing at least one thoracic vertebrae in the range of T1-T12.
- 26. (Previously presented) The apparatus of claim 17, wherein the at least one electrode is adapted to be located in a region containing at least one thoracic nerve bundle.

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27. (Previously presented) The apparatus of claim 17, wherein the at least one electrode is adapted to be located in a region containing at least one thoracic nerve bundle in the range of T1-T12.

28.-40. (Canceled)